SUPPLEMENTAL Notice of Allowability

Application No.	Applicant(s)
10/022,080	WALTON ET AL.
Examiner	Art Unit
Stephen Elmore	2186

	Stephen Elmore 2100	
All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85)	or other appropriate communication will be mailed in due course. THIS GHTS. This application is subject to withdrawal from issue at the initiati	ve
1. \boxtimes This communication is responsive to <u>the Response to Notice</u>	ce of Allowance containing "Remarks/Arguments" filed July 29, 2003.	
2. 🔀 The allowed claim(s) is/are <u>1-10</u> .		
3. 🛮 The drawings filed on 13 December 2001 are accepted by	the Examiner.	
International Bureau (PCT Rule 17.2(a)).	been received.	
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" on noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file a reply complying with the requirements ENT of this application.	
5. A SUBSTITUTE OATH OR DECLARATION must be subminification (PTO-152) which give	tted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF s reason(s) why the oath or declaration is deficient.	
6. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.	
(a) ☐ including changes required by the Notice of Draftspers		
1) hereto or 2) to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	Amendment / Comment or in the Office action of	
Identifying indicia such as the application number (see 37 CFR 1, each sheet. Replacement sheet(s) should be labeled as such in the	84(c)) should be written on the drawings in the front (not the back) of he header according to 37 CFR 1.121(d).	
 DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I 		
	\	
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. Notice of Informal Patent Application (PTO-152)	
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary (PTO-413), Paper No./Mail Date	
3. Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date		
4. ☐ Examiner's Comment Regarding Requirement for Deposit	8. Examiner's Statement of Reasons for Allowance	
of Biological Material	9. Other	
	,	

U.S. Patent and Trademark Office PTOL-37 (Rev. 1-04)

Part of Paper No./Mail Date 5



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.iispin.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/25/2003

Krishnendu Gupta, Esq. EMC Corporation Office of the General Counsel 35 Parkwood Drive Hopkinton, MA 01748

EXA	MINER
ELMORE,	STEPHEN C
ART UNIT	CLASS-SUBCLASS
2186	711-162000

DATE MAILED: 03/25/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,080	12/13/2001	John K. Walton	EMC-01-153	2897

TITLE OF INVENTION: METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1300	\$0	\$1300	06/25/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED, THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

S)/

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE Commissioner for Patents Washington, D.C. 20231 Fax (703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKETNO. CONFIRMATIONN 10022,080 12/13/2001 John K. Walton EMC-01-153 2897 TITLE OF INVENTION: METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OFERATIONS APPLN TYPE SMALL ENTITY ISSUE FEE FUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 50 \$1300 06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-16/2000 1. Change of correspondence address or indication of "Fee Address" (37 the names of up to 3 registered patent attorneys or agents of the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 3 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agents. (18 the names of up to 2 registered patent attorneys or agent.) And the names of up to 2 registered patent attorneys or agent. (18 the names of up to	appropriate. All further cor indicated unless corrected be maintenance fee notification	below or directed otherwis	Patent, advance orders te in Block 1, by (a) spe	and notification ecifying a new co	of maintenance for rrespondence add	ces will be mailed to the current bress; and/or (b) indicating a sepa	correspondence address a arate "FEE ADDRESS" for
Krishnendu Gupta, Esq. EMC Corporation Office of the General Counsel 35 Parkwood Drive Hopkinton, MA 01748 APPLICATION NO. FILING DATE FIRST NAMED INVENTOR APPLICATION NO. FILING DATE APPLICATION NO. FILING DATE FIRST NAMED INVENTOR APPLICATION NO. FILING DATE APPLICATION NO. FILING DATE APPLICATION NO. FILING DATE FIRST NAMED INVENTOR APPLICATION NO. FILING DATE APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS EXAMINE APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS EXAMINE APPLICATION METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS EXAMINE EXAMINE ART UNIT CLASS-SUBCLASS 1. Integrated patent attorneys or agents. If the manuer of up to 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		=	up with any corrections or use B	lock 1)			
EMC Corporation Office of the General Counsel 35 Parkwood Drive Hopkinton, MA 01748 APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. Copposited with under separate covery of the state state of the control of the USPTO, on the date indicated below. Copposited with under separate covery of the control of the USPTO, on the date indicated below. Copposited with under separate covery of the Control of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery of the USPTO, on the date indicated below. Copposited with under separate covery copposited with under separate covery complete individual under separate covery complete indicated below. Copposited with under separate covery complete individual under separate covery complete individual under separate covery complete individual under separate covery complete in the endount of the fee(s) is enclosed. Upsymen by credit card. Copposited with un					accompanying p	papers. Each additional paper, s	such as an assignment or
Office of the General Counsel 35 Parkwood Drive Hopkinton, MA 01748 Inherby certify that, this Fe(s) Transmitted is being depoted as the same interest of the content of	_	, 204.			•		-
APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION N. 10/022,080 12/13/2001 John K. Walton EMC-01-153 2897 TITLE OF INVENTION: METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLN-TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$0 \$1300 66/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-16/2000 1. Change of correspondence address or indication of "Fee Address" (37 Total peel correspondence address or indication for "Fee Address" (37 Total peel correspondence address (or Change of Correspondence Address from PTO/SB/1/22) attached. 1. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/1/22) attached. 1. "Fee Address" indication (or "Fee Address" Indication form Number is required. 3. ASSIGNEE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously shumited to the USPTO or is being submitted under separate cover. Completion of this form is NOT as abstitute for filing an assignment. (A) NAME OF ASSIGNEE Please check the appropriate assignee category or categories (will not be printed on the patent) 1. Save Fee UA Acheck in the amount of the fee(s) is enclosed. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment of Fee(s): 1. Advence Order - # of Copies UP Amount of the fee(s) is enclosed. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. Payment by credit card, Form PTO-2038 is attached. 1. The Commissioner for Patents is requested to apply the Iss					I hereby certify United States Po	that this Fee(s) Transmittal is	being deposited with the
APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION I 10/022,080 12/13/2001 John K. Walton EMC-01-153 2897 TITLE OF INVENTION: METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLN TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$0 \$1300 06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 71-162000) 1. Change of correspondence address or indication of "Fee Address" (37 11-162000) 1. Change of correspondence address or indication for Fee Address of the Transport of the Address of the Address of the Address of the Transport of the Address of th					envelope addres	sed to the Box Issue Fee address to USPTO, on the date indicated h	above, or being facsimile
APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATIONN 10/022,080 12/13/2001 John K. Walton EMC-01-153 2897 TITLE OF INVENTION: METHOD AND SYSTEM FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$1300 06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). U Change of correspondence address (or Change of Correspondence Address form FTO/SB1/22) attached. U "Fee Address" indication or "Fee Address" indication form PTO/SB1/22 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 1 and control of the fee(s) is enclosed. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment by redict each. Form PTO-2038 is attached. U Payment	Tropidinon, WITT 01	7-10				<u> </u>	(Depositor's name)
10/022,080 12/13/2001 15 Jayrent FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$50 \$1300 \$06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563) 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563) 1. Change of correspondence address (or Change of Correspondence Address for Indication for "Fee Address" (37 CFR 1.563) 1. Change of correspondence address (or Change of Correspondence Address for Indication for "Fee Address" indication for "Fee Address" indication for "Fee Address" indication for "Fee Address" indication for "Fee Address indication for "Fee Address" indication for "Fee Address indication for "							(Signature)
10/022,080 12/13/2001 15 Jayrent FOR MAINTAINING DATA INTEGRITY USING DUAL WRITE OPERATIONS APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$50 \$1300 \$06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563) 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563) 1. Change of correspondence address (or Change of Correspondence Address for Indication for "Fee Address" (37 CFR 1.563) 1. Change of correspondence address (or Change of Correspondence Address for Indication for "Fee Address" indication for "Fee Address" indication for "Fee Address" indication for "Fee Address" indication for "Fee Address indication for "Fee Address" indication for "Fee Address indication for "							(Date)
APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1300 \$0 \$0 \$1300 \$06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563). U Change of correspondence address (or Change of Correspondence Address form PTO/SB/1/22) attached. U "Fee Address" indication (or "Fee Address" Indication form sumber is required. U "Fee Address" indication (or "Fee Address" Indication form sumber is required. 3. ASSIGNER NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent, Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate corec. Completion of this form is NOT an abstitute for filing an assignment data. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): U Advance Order - # of Copies U Publication Fee U Publication Fee U Publication Fee U Publication Fee U Publication Fee (I pequired) will not be accepted from anyone other than the applicant; a registered automation of gagent or organic or other party in interest as shown by the records of the United States Patent and Trademark Office.	APPLICATION NO.	FILING DATE	FIRS	T NAMED INVEN	OR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(s) DUE DATE DUE nonprovisional NO \$1300 \$0 \$1300 06/25/2003 EXAMINER ART UNIT CLASS-SUBCLASS ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 1. Change of correspondence address (or Change of Correspondence Address for DATE (1974) (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents OR, alternatively, (2) the name of up to 2 registered patent attorneys or agents of the up to 2 registered patent attorneys or agents of the up to 2 registered patent attorneys or agents or the patent (DR) or agents of up to 3 registered patent attorneys or agents or the up to 2 registered patent attorneys or agents or the	•	•					2897
EXAMINER ELMORE, STEPHEN C 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 1. Change of correspondence address for Change of Correspondence Address form PTO/SB/122) attached. 1. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 1. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 1. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 1. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 2. For printing on the patent front page, list (1) the name of up to 3 registered patent attorneys or agents. OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the amnes of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 1. I individual U corporation or other private group entity U govern the country of the fee(s) is enclosed. 1. Payment of Fee(s): 1. I Saue Fee 1. A check in the amount of the fee(s) is enclosed. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PTO-2038 is attached. 1. Payment by credit card. Form PT	TITLE OF INVENTION: M	ETHOD AND SYSTEM F	OR MAINTAINING DA	ATA INTEGRITY	USING DUAL V	WRITE OPERATIONS	
EXAMINER ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). U Change of correspondence address (or Change of Correspondence Address for PTO/SB1/22) attached. U "Fee Address" indication (or "Fee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Fee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Fee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U "Fee Address" indication (or "Tee Address" Indication form PTO/SB1/22) attached. U RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) U Acheck in the amount of the fee(s) is enclosed. U Payment of Fee(s): U A check in the amount of the fee(s) is enclosed. U Payment of Fee(s): U A check in the amount of the fee(s) is enclosed. U Payment of Fee(s): U A check in the amount of the fee(s) is enclosed. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached.	APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLI	CATION FEE	TOTAL FEE(S) DUE	DATE DUE
ELMORE, STEPHEN C 2186 711-162000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). U Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. U "Fee Address" indication (or "Fee Address" Indication form PTO/SB/122) attached. U "Fee Address" indication (or "Fee Address" Indication form Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): U Issue Fee U Publication Fee U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Payment by credit card. Form PTO-2038 is attached. U Roomissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignce or other party in interest as shown by the records of the United States Patent and Trademark Offfice.	nonprovisional	NO ,	\$1300		\$0	\$1300	06/25/2003
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 3. Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. 4. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03.02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): 4b. Payment of Fee(s): 4c. Form PTO-2038 is attached. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. Check in the amount of the fee(s) is enclosed. 4d. A check in the amount of the fee(s) is enclosed. 4d. A check in	EXAMIN	VER	ART UNIT	CLASS-SUBCL	ASS		
L'Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. L'Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) LI ssue Fee LI Sue Fee LI Acheck in the amount of the fee(s) is enclosed. LI Payment of Fee(s): LI Substitute Fee LI Acheck in the amount of the fee(s) is enclosed. LI Payment by credit card. Form PTO-2038 is attached. LI Phoblication Fee LI Acheck in the amount of the fee(s) is enclosed. LI Payment by credit card. Form PTO-2038 is attached. LI Phoblication Fee LI Payment by credit card. Form PTO-2038 is attached. LI Phoblication Fee LI Payment by credit card. Form PTO-2038 is attached. LI Phoblication Fee LI Payment by credit card. Form PTO-2038 is attached. LI Phoblication Fee LI Payment by credit card. Form PTO-2038 is attached. LI Physicallection for payment by credit card. Form PTO-2038 is attached. LI The Commissioner is hereby authorized by charge the required fee(s), or credit any overpaymen Deposit Account Number (Authorized Signature) (Date)	ELMORE, ST	EPHEN C	2186	711-16200	0		
single firm (having as a member a registered attorney or agent). Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent. Inclusion of the reapply any previously paid issue fee to the application identified above. Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent. Inclusion of assignee data is only appropriate when an assignment is listed, no name will be printed. Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent. Inclusion of assignee data is only appropriate when an assignment is listed, no name will be printed. Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent. Inclusion of assignee data is only appropriate when an assignment is itself, no name is listed, no name will be printed. Gammissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.		ce address or indication of	"Fee Address" (37				
"Fee Address" indication (or "Fee Address" Indication form PTO/SBI47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) individual	☐ Change of corresponde	ence address (or Change of	Correspondence	or agents OR, single firm (ha	alternatively, (2) ving as a memb	the name of a terms of	
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): 4c. A check in the amount of the fee(s) is enclosed. 4d. Payment by credit card. Form PTO-2038 is attached. 4d. The Commissioner is hereby authorized by charge the required fee(s), or credit any overpaymen Deposit Account Number	☐ "Fee Address" indication PTO/SB/47; Rev 03-02 of	on (or "Fee Address" Indic	ation form se of a Customer	attorney or age registered patent	nt) and the nam attorneys or age	nes of up to 2 2	
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): 4c. A check in the amount of the fee(s) is enclosed. 4d. Payment by credit card. Form PTO-2038 is attached. 4d. The Commissioner is hereby authorized by charge the required fee(s), or credit any overpaymen Deposit Account Number	3. ASSIGNEE NAME AND	RESIDENCE DATA TO	BE PRINTED ON THE I	PATENT (print or	tyne)		
4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): A check in the amount of the fee(s) is enclosed. Publication Fee Advance Order - # of Copies Deposit Account Number Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademack Office. This collection of information is required by 37 CFR 1311. The information	PLEASE NOTE: Unless a been previously submitted	n assignee is identified bel to the USPTO or is being s	ow, no assignee data wil submitted under separate	ll appear on the p cover. Completion	atent. Inclusion on of this form is N	OT a substitute for filing an assig	e when an assignment has inment.
4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): A check in the amount of the fee(s) is enclosed. Payment by credit card. Form PTO-2038 is attached. The Commissioner is hereby authorized by charge the required fee(s), or credit any overpaymen Deposit Account Number (enclose an extra copy of this form). Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is provided by 37 CFR 1311. The information is required by 37 CFR 1311.	Please check the appropriate	assignee category or categ	ories (will not be printed	on the patent)	⊔ individual	☐ corporation or other private en	roup entity
Payment by credit card. Form PTO-2038 is attached. Under Advance Order - # of Copies						<u> </u>	
Advance Order - # of Copies U The Commissioner is hereby authorized by charge the required fee(s), or credit any overpaymen Deposit Account Number (enclose an extra copy of this form). Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1311. The information is required by	☐ Issue Fee		⊔ A che	eck in the amount	of the fee(s) is en	closed.	
Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1311. The information is required to	☐ Publication Fee						
(Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademack Office. This collection of information is required by 37 CFR 1311. The information is required by	☐ Advance Order - # of Co	opies	Deposit	Commissioner is h Account Number	ereby authorized	by charge the required fee(s), or c (enclose an extra copy of this i	redit any overpayment, to form).
NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1311. The information is required by	Commissioner for Patents is	requested to apply the Issu	e Fee and Publication Fe	e (if any) or to re-	apply any previous	usly paid issue fee to the applicati	on identified above.
other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to	(Authorized Signature)		(Date)			· ·	
This collection of information is required by 37 CFR 1 311. The information is required to	NOTE; The Issue Fee and other than the applicant; interest as shown by the rec	Publication Fee (if requi a registered attorney or a cords of the United States F	red) will not be accepte gent; or the assignee or atent and Trademark Off	d from anyone other party in fice.			
obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, D.C. 20231. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.	This collection of informa obtain or retain a benefit lapplication. Confidentiality estimated to take 12 minut completed application for case. Any comments on suggestions for reducing the Patent and Trademark Offi NOT SEND FEES OR Commissioner for Patents, Under the Paperwork Ret	tion is required by 37 CFI by the public which is to is governed by 35 U.S.C. es to complete, including a to the USPTO. Time when amount of time you have a mount of time you is burden, should be sent cc, U.S. Department of CC COMPLETED FORMS Washington, DC 20231.	R 1.311. The information file (and by the USPTO 122 and 37 CFR 1.14. The pathering, preparing, and ill vary depending upon require to complete the to the Chief Information TO THIS ADDRESS persons are required to	n is required to to process) an his collection is submitting the the individual is form and/or n Officer, U.S. o.C. 2023 i. DO S. SEND TO:			



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,080	12/13/2001	John K. Walton	EMC-01-153	2897
75	90 03/25/2003		EXAMINI	ER
Krishnendu Gupt	a, Esq.		ELMORE, STE	EPHEN C
EMC Corporation Office of the Gener	al Counsel		ART UNIT	PAPER NUMBER
35 Parkwood Drive			2186	9/
Hopkinton, MA 01	748		DATE MAILED: 03/25/2003	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 40 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 40 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FIL	ING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,080 12/13/2001 John K. Walton				EMC-01-153	2897
7	1590	03/25/2003		EXAMINE	R
Krishnendu Gup	ta, Esq.			ELMORE, STE	EPHEN C
EMC Corporation Office of the Gene		sel		ART UNIT	PAPER NUMBER
35 Parkwood Driv				2186	
Hopkinton, MA 01748 UNITED STATES			DATE MAILED: 03/25/2003		

Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.